

**REMARKS****I. Amendments of the claims**

This is in full response to the outstanding Official Action mailed July 1, 2010. Applicants request continued examination, and reconsideration and withdrawal of all outstanding rejections.

**Prior Art***Novelty*

Claims 16 and 17 stand rejected as allegedly lacking novelty in view of Bach et al. Applicants submit herewith a verified translation of Applicants priority applications, FR03/08289 and FR02/13022. Applicants have properly claimed priority to those applications, and with this submission, are entitled to the full benefit of the priority dates of those applications. As previously asserted, the earliest priority date of those applications antedates the Bach et al. reference, thereby eliminating that reference as available prior art. Applicants further submit that the translations of the priority applications demonstrate that Applicants satisfied Section 112, 1<sup>st</sup> paragraph and were in possession of the claimed invention and enabled it at least as early as the earliest priority date of those related applications. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection over Bach et al.

*Obviousness*

Claims 16 and 17 stand rejected as allegedly obvious of Macfarlane et al., USP 6,479,504 ("Macfarlane" or "the '504 reference").

The rejection asserts that Macfarlane discloses the compound of claim 16 wherein R' is -NH-(CH<sub>2</sub>)<sub>3</sub>-N(CH<sub>3</sub>)<sub>2</sub>, and n and p are 0. To expedite examination, and without acquiescing in the rejection, Applicants submit herewith an amendment to the claims wherein claim 16 is amended to eliminate the embodiment wherein both R' is -NH-(CH<sub>2</sub>)<sub>3</sub>-N(CH<sub>3</sub>)<sub>2</sub>, and n and p are 0.

Applicants have introduced new claim 22, which is similar to claim 16, but wherein R' is  $-\text{NH}-(\text{CH}_2)_3-\text{N}(\text{CH}_3)_2$ , but wherein n and p are not 0.

Neither amended claim 16, nor new claim 22, would have been obvious over the Macfarlane reference. Likewise, claim 17 would not have been obvious over Macfarlane.

Macfarlane discloses a single compound having the phenanthridine structure of Formula II. It is among a large and diverse class of compounds characterized only as having "some inhibitory activity." Col. 11, l. 5-6. As that compound (354 S-10) is the only phenanthridine compound, there is no teaching or suggestion as to where, how, or why one might modify that compound. Indeed, the reference teaches and suggests that one should move in an entirely different direction.

Macfarlane teaches that compounds having a fundamentally different structure are those having the greatest activity, and thus the most likely to produce the most efficacious inhibitory activity. For example, at columns 28 and 32, Macfarlane describes compound 32 as being "extremely active", and as being "the most potent antagonist of immunostimulatory CpG-ODN's thus known." Compound 32 has a quinoline structure, to which is appended naphthalene and a substituted phenyl amino substituent. Compound 32 is fundamentally structurally different from compound 354 S-10, and, to the extent that Macfarlane can be argued to suggest manipulation of 354 S-10, the only manipulations fairly suggested are those producing compounds having greater stimulatory activity. None of the compounds said to be particularly active have the phenanthridine structure of compound 354 S-10 (or the claimed compounds); and so, to the extent that Macfarlane teaches manipulation of such compounds, it would have suggested elimination of the phenanthridine structure altogether.

Further, the Macfarlane reference itself makes it clear that manipulation of the various molecules - even those possessing the more promising quinoline moiety - defies orderly explanation, and is unpredictable in terms of inhibitory activity. See, e.g., col. 31, lines 55-67 (describing just a few manipulations, such as removing a naphthyl group from a quinoline structure, that produced compounds that are "completely inactive"). Thus, by Macfarlane's own express teaching, the manipulation of the varied and diverse compounds disclosed therein is

unpredictable, and so one skilled in the art seeking to further enhance the inhibitory effect by manipulation of those compounds would have been unlikely to choose phenanthridine compounds, and would not have known how to go about manipulating such compounds even if those had been chosen. Further, given Macfarlane's acknowledgement of the profound unpredictability of the manipulations of the various molecules, one skilled in the art would have had no well reasoned basis that virtually any modification of the various molecules would have produced compounds having the desired inhibitory activity.

In view of the foregoing, , Macfarlane does not teach or suggest the claimed invention. Reconsideration and withdrawal of the obviousness rejection over Macfarlane is respectfully requested.

**Conclusion**

For at least the foregoing reasons, Applicants respectfully request further examination, reconsideration and withdrawal of all outstanding rejections, and formal notification of allowance. If the Examiner perceives any impediment to such formal notification of allowance, whether substantive or merely formal, Applicants encourage the Examiner to telephone their representative at the number provided below. Such informal communication will expedite examination and disposal of the instant case.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

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